



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE

United States Patent and Trademark Office

Address: COMMISSIONER FOR PATENTS

P.O. Box 1450

Alexandria, Virginia 22313-1450

www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/566,072	09/06/2006	Dieter Krohn	8299	9416
67886	7590	12/29/2009		
WOODLING, KROST AND RUST 9213 CHILLICOTHE ROAD KIRTLAND, OH 44094				
EXAMINER				
STRIMBU, GREGORY J				
ART UNIT		PAPER NUMBER		
3634				
NOTIFICATION DATE		DELIVERY MODE		
12/29/2009		ELECTRONIC		

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

ken.mitchell@clevepat.com

Office Action Summary

Application No.

10/566,072

Applicant(s)

KROHN ET AL.

Examiner

Gregory J. Strimbu

Art Unit

3634

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 06 September 2006.
2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-24 is/are pending in the application.
4a) Of the above claim(s) _____ is/are withdrawn from consideration.
5) ☐ Claim(s) _____ is/are allowed.
6) ☐ Claim(s) 1-24 is/are rejected.
7) ☐ Claim(s) _____ is/are objected to.
8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
10) ☒ The drawing(s) filed on 06 September 2006 is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO-8508)
Paper No(s)/Mail Date 1/26/06
4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date _____
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____

Information Disclosure Statement

The information disclosure statement filed January 26, 2006 fails to comply with 37 CFR 1.98(a)(2), which requires a legible copy of each cited foreign patent document; each non-patent literature publication or that portion which caused it to be listed; and all other information or that portion which caused it to be listed. It has been placed in the application file, but the PCT publication WO 2005/012081 A1 referred to therein has not been considered.

Drawings

The drawings are objected to because reference characters "10" in figure 1, "38" in figure 3, and "58" in figures 7 and 8 should not be underlined. It is suggested the applicant use a lead line with an arrowhead to indicate what the reference characters 10, 38 and 58 are referring to. Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as "amended." If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. Each drawing sheet submitted after

the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

The drawings are objected to under 37 CFR 1.83(a). The drawings must show every feature of the invention specified in the claims. Therefore, the detachable retaining means (claim 18) must be shown or the feature(s) canceled from the claim(s). No new matter should be entered.

Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as "amended." If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner,

the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

Specification

Applicant is reminded of the proper language and format for an abstract of the disclosure.

The abstract should be in narrative form and generally limited to a single paragraph on a separate sheet within the range of 50 to 150 words. It is important that the abstract not exceed 150 words in length since the space provided for the abstract on the computer tape used by the printer is limited. The form and legal phraseology often used in patent claims, such as "means" and "said," should be avoided. The abstract should describe the disclosure sufficiently to assist readers in deciding whether there is a need for consulting the full patent text for details.

The language should be clear and concise and should not repeat information given in the title. It should avoid using phrases which can be implied, such as, "The disclosure concerns," "The disclosure defined by this invention," "The disclosure describes," etc.

The abstract of the disclosure is objected to because the recitation "Disclosed is" on line can be easily implied and because of the legal phraseology "said" and/or "means" on lines 3, 6 and 8-10. Correction is required. See MPEP § 608.01(b).

The following guidelines illustrate the preferred layout for the specification of a utility application. These guidelines are suggested for the applicant's use.

Arrangement of the Specification

As provided in 37 CFR 1.77(b), the specification of a utility application should include the following sections in order. Each of the lettered items should appear in upper case, without underlining or bold type, as a section heading. If no text follows the section heading, the phrase "Not Applicable" should follow the section heading:

- (a) TITLE OF THE INVENTION.
- (b) CROSS-REFERENCE TO RELATED APPLICATIONS.
- (c) STATEMENT REGARDING FEDERALLY SPONSORED RESEARCH OR DEVELOPMENT.

(d) THE NAMES OF THE PARTIES TO A JOINT RESEARCH AGREEMENT.

(e) INCORPORATION-BY-REFERENCE OF MATERIAL SUBMITTED ON A COMPACT DISC.

(f) BACKGROUND OF THE INVENTION.

(1) Field of the Invention.

(2) Description of Related Art including information disclosed under 37 CFR 1.97 and 1.98.

(g) BRIEF SUMMARY OF THE INVENTION.

(h) BRIEF DESCRIPTION OF THE SEVERAL VIEWS OF THE DRAWING(S).

(i) DETAILED DESCRIPTION OF THE INVENTION.

(j) CLAIM OR CLAIMS (commencing on a separate sheet).

(k) ABSTRACT OF THE DISCLOSURE (commencing on a separate sheet).

(l) SEQUENCE LISTING (See MPEP § 2424 and 37 CFR 1.821-1.825. A "Sequence Listing" is required on paper if the application discloses a nucleotide or amino acid sequence as defined in 37 CFR 1.821(a) and if the required "Sequence Listing" is not submitted as an electronic document on compact disc).

The disclosure is objected to because the references to the claims should be deleted. For example, "Claim 1" on line 2 of page 3 should be deleted. On line 4 of page 18, it appears that "12" should be changed to --14-- to avoid confusion. On line 25 of page 18, "which starts at the frame 12" is grammatically awkward and confusing. On lines 15-16 of page 19, it appears that "longitudinal" should be changed to --lateral-- to avoid confusion. On line 18 of page 21, it is unclear why the line ends with a question mark.

Appropriate correction is required.

The title of the invention is not descriptive. A new title is required that is clearly indicative of the invention to which the claims are directed. It is suggested the applicant amend the title to refer to the locking features of the invention.

Claim Objections

Claims 1-24 are objected to because they fail to begin with the customary article "The" or "A". Appropriate correction is required.

Claim Rejections - 35 USC § 112

Claims 1-24 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Recitations such as "means of a nonpositive connection" on line 4 of claim 1 render the claims indefinite because it is unclear what the applicant is attempting to set forth. It is unclear whether or not the applicant intends to invoke 35 USC 112, 6th paragraph and it is unclear what is meant by "nonpositive". Recitations such as "a frame" on line 14 of claim 1 render the claims indefinite because it is unclear whether or not the guide and the frame comprise the same component. Note that, in figure 1, the frame 12 and the guides 16 and 18 appear to be the same component, however, claim 1 implies that they are different components. Recitations such as "and/or" on line 16 of claim 1 render the claims indefinite because it is unclear what is meant by "/". Is the applicant setting forth "and" only, "or" only, or "and" or "or"? Recitations such as "the action" on line 17 of claim 1 render the claims indefinite because they lack antecedent basis. Recitations such as "the motion converter" on line 18 of claim 1 render the claims indefinite because it is unclear to which one of the plurality of motion converters set forth above the applicant is referring. Recitations such as "one side" on line 19 of

claim 1 render the claims indefinite because it is unclear whether or not the applicant is referring to one of the first and second sides set forth above. Recitations such as "it" on line 20 of claim 1 should be replaced with the name the pronoun is referring to.

Recitations such as "the other peripheral direction" on line 22 of claim 1 render the claims indefinite because they lack antecedent basis. Recitations such as "a slide with a guide link is installed movably in the motion converter" on lines 25-26 of claim 1 render the claims indefinite because it is unclear what the applicant is attempting to set forth since it appears that the slide and the guide link are the motion converter rather than merely being disposed in the motion converter. Recitations such as "assigned to" on line 2 of claim 2 render the claims indefinite because it is unclear what the applicant is attempting to set forth. Is the applicant attempting to set forth that the first frame part is on the first side? Recitations such as "the second frame part" on line 3 of claim 3 and "the stop means" on line 4 of claim 3 render the claims indefinite because they lack antecedent basis. Recitations such as "designed as" on line 2 of claim 8 render the claims indefinite because it is unclear what the applicant is attempting to set forth. Is the force transmitting means actually a link chain or is it merely designed to be a link chain. Recitations such as "maintenance free" on line 2 of claim 10 render the claims indefinite because it is unclear what the applicant is attempting to set forth. Recitations such as "the stop means are provided with a seal" on line 2 of claim 11 render the claims indefinite because it is unclear what the applicant is attempting to set forth since it appears that the stop means and the seal are the same component. Recitations such as "introduced in the form of a tape" on line 2 of claim 15 render the claims indefinite

because it is unclear what the applicant is attempting to set forth. A broad range or limitation together with a narrow range or limitation that falls within the broad range or limitation (in the same claim) is considered indefinite, since the resulting claim does not clearly set forth the metes and bounds of the patent protection desired. See MPEP § 2173.05(c). Note the explanation given by the Board of Patent Appeals and Interferences in *Ex parte Wu*, 10 USPQ2d 2031, 2033 (Bd. Pat. App. & Inter. 1989), as to where broad language is followed by "such as" and then narrow language. The Board stated that this can render a claim indefinite by raising a question or doubt as to whether the feature introduced by such language is (a) merely exemplary of the remainder of the claim, and therefore not required, or (b) a required feature of the claims. Note also, for example, the decisions of *Ex parte Steigewald*, 131 USPQ 74 (Bd. App. 1961); *Ex parte Hall*, 83 USPQ 38 (Bd. App. 1948); and *Ex parte Hasche*, 86 USPQ 481 (Bd. App. 1949). In the present instance, claim 16 recites the broad recitation of "a sealing lip", and the claim also recites "a welded-on metal wire" which is the narrower statement of the range/limitation. Recitations such as "which makes it possible" on lines 2-3 of claim 21 render the claims indefinite because it is unclear what the applicant is attempting to set forth. Recitations such as "Use of the sliding door according to claim 1 as a safety door" on lines 1-2 of claim 23 render the claims indefinite because it is unclear what the applicant is attempting to set forth. Is the applicant setting for a method of use?

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1, 3-7, 23 and 24 are rejected under 35 U.S.C. 103(a) as being

unpatentable over Mueller (US 3608940) in view of Bryson (US 3660936). Mueller discloses a sliding door 10, 12, 14, but is silent concerning non-positive locking means.

However, Bryson discloses a sliding window with a guide 16, 18 for a leaf 14, which can be moved in the guide between an open position and a closed position, and with a locking device, which locks the door leaf 14 in the closed position by means of a nonpositive connection,

where the locking device consists of comprises:

drive means 70,

force-transmitting means 52 which cooperate with the drive means 70,

locking elements 38, and

motion converters 28, which move the locking elements 38;

where the locking elements 38 are moved from a free position, in which the door leaf 14 is not held, into a hold position, in which the door leaf 14 is held by friction;

where a frame 10 is provided, which, when the door leaf 14 is in the closed position, at least partially covers the edge areas of the door leaf 14 on the first and/or second side of the door leaf 14; and

where, under the action of the force-transmitting means 52 and the drive means 70, the motion converter 28 can be moved in a first direction relative to the periphery of the frame 10, parallel to one side of the door leaf 14, as a result of which it moves the locking elements 38 in a direction perpendicular to the first direction from the free position to the hold position, whereas, when the motion converter 28 is moved in the other peripheral direction, it moves the locking elements 38 from the hold position to the free position,

characterized in that

a slide 34 with a guide link 44 is installed movably in the motion converter 28; in that

the locking element 38 is immobilized in the direction parallel to the plane of the door leaf 14 but is free to move in the direction perpendicular thereto between the free position and the hold position; in that

the locking element 38 is connected to the guide link 44 of the slide in such a way that the guide link 44, upon the movement of the slide 34 in the one peripheral direction or the other, moves the locking element 38 from the free position into the hold position or vice versa;
a slack point (not numbered, but shown in figure 6)

It would have been obvious to one of ordinary skill in the art to provide Mueller with a locking means, as taught by Bryson, to provide a better seal between the leaf and the frame.

Claims 2, 11, 12 and 13 are rejected under 35 U.S.C. 103(a) as being unpatentable over Mueller in view of Bryson as applied to claims 1, 3-7, 23 and 24 above, and further in view of Lehto et al. (US 5461829). Lehto et al. discloses a stop means 21.

It would have been obvious to provide Mueller, as modified above, with a stop means, as taught by Lehto et al., to provide a better seal between the leaf and the frame.

Claim 8 is rejected under 35 U.S.C. 103(a) as being unpatentable over Mueller in view of Bryson as applied to claims 1, 3-7, 23 and 24 above, and further in view of Freeman et al. (US 5848575). Freeman et al. discloses a link chain 68 and a pinion 52a.

It would have been obvious to one of ordinary skill in the art to provide Mueller, as modified above, with a chain and pinion, as taught by Freeman et al., to increase the strength and longevity of the force transmitting means.

Claims 9 and 10 are rejected under 35 U.S.C. 103(a) as being unpatentable over Mueller in view of Bryson as applied to claims 1, 3-7, 23 and 24 above, and further in

view of Freeman (US 5542213). Freeman '213 discloses a locking element comprising a ball bearing roller 64.

It would have been obvious to one of ordinary skill in the art to provide Mueller, as modified above, with a ball bearing roller, as taught by Freeman '213, to reduce friction as the locking element moves along the frame.

Claims 14 and 15 are rejected under 35 U.S.C. 103(a) as being unpatentable over Mueller in view of Bryson as applied to claims 1, 3-7, 23 and 24 above, and further in view of Orr et al. (US 2003/0024184). Orr et al. discloses a door frame 10 having a fire blocker 40.

It would have been obvious to one of ordinary skill in the art to provide Mueller, as modified above, with a fire blocker, as taught by Orr et al., to provide a means of sealing the leaf and frame in the event of a fire.

Claim 16 is rejected under 35 U.S.C. 103(a) as being unpatentable over Mueller in view of Bryson and Orr et al. as applied to claims 14 and 15 above, and further in view of Maher (US 2927787). Maher discloses a sealing lip 100.

It would have been obvious to one of ordinary skill in the art to provide Mueller, as modified above, with a seal lip, as taught by Maher, to increase the effectiveness of the seal.

Claim 17 is rejected under 35 U.S.C. 103(a) as being unpatentable over Mueller in view of Bryson as applied to claims 1, 3-7, 23 and 24 above, and further in view of Petzoldt et al. (US 5300159). Petzoldt et al. discloses the use of titanium in a door (see column 1, line 66 to column 2, line 1).

It would have been obvious to one of ordinary skill in the art to provide Mueller, as modified above, with a titanium construction, as taught by Petzoldt et al., to increase the corrosion resistance of the door.

Claim 18 is rejected under 35 U.S.C. 103(a) as being unpatentable over Mueller in view of Bryson as applied to claims 1, 3-7, 23 and 24 above, and further in view of the admitted prior art on lines 19-23 of page 20. The admitted prior art on lines 19-23 of page 20 discloses the use of detachable retaining means.

It would have been obvious to one of ordinary skill in the art to provide Mueller, as modified above, with a retaining means, as taught by the admitted prior art in lines 19-23 of page 20, to prevent the door from unwontedly closing when the door is in the open position.

Claim 19 and 20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Mueller in view of Bryson as applied to claims 1, 3-7, 23 and 24 above, and further in view of Dugan (US 4378684). Dugan discloses a safety sensor 22 which blocks a locking device 14 when an object 26 is removed, a spring loaded feeler 34, a force transmitting means 58.

It would have been obvious to one of ordinary skill in the art to provide Mueller, as modified above, with a safety sensor, as taught by Dugan et al., to prevent unwanted movement of the door leaf.

Claim 21 is rejected under 35 U.S.C. 103(a) as being unpatentable over Mueller in view of Bryson as applied to claims 1, 3-7, 23 and 24 above, and further in view of Dugan (US 4378684). Dugan discloses a blocking device 14.

It would have been obvious to one of ordinary skill in the art to provide Mueller, as modified above, with a blocking device, as taught by Dugan et al., to prevent unwanted movement of the door leaf.

Claim 22 is rejected under 35 U.S.C. 103(a) as being unpatentable over Mueller in view of Bryson as applied to claims 1, 3-7, 23 and 24 above. Mueller, as modified above, is silent concerning a burn through standard.

However, one of ordinary skill in the art is expected to routinely experiment with parameters so as to ascertain the optimum or workable ranges for a particular use. Accordingly, it would have been no more than an obvious matter of engineering design choice, as determined through routine experimentation and optimization, for one of ordinary skill to provide Mueller, as modified above, with a burn through resistance according to Airbus standard ABD0031 to increase the fire resistance of the sliding door increase the time before fire is able to penetrate the door.

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Gregory J. Strimbu whose telephone number is 571-272-6836. The examiner can normally be reached on Monday through Friday 8:00 to 4:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Katherine Mitchell can be reached on 571-272-7069. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Gregory J. Strimbu/
Primary Examiner, Art Unit 3634